1 **PART 547 – MINIMUM TECHNICAL STANDARDS FOR GAMING EQUIPMENT USED**
2 **WITH THE PLAY OF CLASS II GAMES**

3 Sec.

1   547.17   How does a tribal gaming regulatory authority apply to implement an alternate standard to
2   those required by this part? ~~OR What notification to the NIGC is required after an alternate~~
3   ~~standard from those required by the part is granted?~~

4

5   Authority: 25 U.S.C. 2706(b).

6

7   **§ 547.1   What is the purpose of this part?**

8   The Indian Gaming Regulatory Act, 25 U.S.C. 2703(7)(A)(i), permits the use of electronic,

9   computer, or other technologic aids in connection with the play of Class II games. This part

10   establishes the minimum technical standards governing the use of such aids.

11   **§ 547.2 ~~How do~~ What are the definitions for this part?**

12   For the purposes of this part, the following definitions apply:

13   *Account access component.* A component within a Class II gaming system that reads or

14   recognizes account access media and gives a patron the ability to interact with an account.

15   *Account access medium.* A magnetic stripe card or any other medium inserted into, or otherwise

16   made to interact with, an account access component in order to give a patron the ability to interact

17   with an account.

18   *Audit mode.* The mode where it is possible to view Class II gaming system accounting functions,

19   statistics, etc. and perform non-player-related functions.

20   *Agent.* A person authorized by the gaming operation, as approved by the TGRA, to make

21   decisions or perform tasks or actions on the behalf of the gaming operation.

1   *Cancel credit.* An action initiated by the Class II gaming system where some or all of a player's

2   credits are removed by an attendant and paid to the player.

3   *Cashless system.* A proprietary system that performs cashless transactions and maintains records

4   of those cashless transactions.

5   *Cashless transaction.* A movement of funds electronically from one component to another.

6   *CD-ROM.* Compact Disc – Read Only Memory.

7   *Chair.* The Chair of the National Indian Gaming Commission.

8   *Class II gaming.* Class II gaming must have the same meaning as defined in 25 U.S.C.

9   2703(7)(A).

10   *Class II gaming system.* All components, whether or not technologic aids in electronic, computer,

11   mechanical, or other technologic form, that function together to aid the play of one or more Class II

12   games, including accounting functions mandated by these regulations.

13   *Commission.* The National Indian Gaming Commission established by the Indian Gaming

14   Regulatory Act, 25 U.S.C. 2701 *et seq*.

15   *Coupon.* A financial instrument of fixed wagering value, usually paper, that can only be used to

16   acquire non-cashable credits through interaction with a voucher system. This does not include

17   instruments such as printed advertising material that cannot be validated directly by a voucher

18   system.

19   *Critical memory.* Memory locations storing data essential to the functionality of the Class II

20   gaming system.

1   *DLL.* A Dynamic-Link Library file.

2   *Download package.* Approved data sent to a component of a Class II gaming system for such

3   purposes as changing the component software.

4   *DVD.* Digital Video Disk or Digital Versatile Disk.

5   *EPROM.* Erasable Programmable Read Only Memory – a non-volatile storage chip or device that

6   may be filled with data and information, that once written is not modifiable, and that is retained even

7   if there is no power applied to the machine.

8   *Electromagnetic interference.* The physical characteristic of an electronic component to emit

9   electronic noise either into free air, onto the power lines, or onto communication cables.

10   *Fault.* An event that when detected by a Class II gaming system causes a discontinuance of game

11   play or other component functions.

12   *Financial instrument.* Any tangible item of value tendered in Class II game play, including, but

13   not limited to, bills, coins, vouchers and coupons.

14   *Financial instrument acceptor.* Any component that accepts financial instruments, such as a bill

15   validator.

16   *Financial instrument dispenser.* Any component that dispenses financial instruments, such as a ticket

17   printer.

18   *Financial instrument storage component.* Any component that stores financial instruments, such

19   as a drop box.

1   *Flash memory.* Non-volatile memory that retains its data when the power is turned off and that

2   can be electronically erased and reprogrammed without being removed from the circuit board.

3   *Game software.* The operational program or programs that govern the play, display of results,

4   and/or awarding of prizes or credits for Class II games.

5   *Gaming equipment.* All electronic, electro-mechanical, mechanical, or other physical components

6   utilized in the play of Class II games.

7   *Hardware.* Gaming equipment.

8   *Interruption.* Any form of mis-operation, component failure, or interference to the Class II

9   gaming equipment.

10   *Modification.* A revision to any hardware or software used in a Class II gaming system.

11   *Non-cashable credit.* Credits given by an operator to a patron; placed on an Class II gaming

12   system through a coupon, cashless transaction or other approved means; and capable of activating

13   play but not being converted to cash.

14   *Patron.* A person who is a customer or guest of the gaming operation and may interact with a

15   Class II game. Also may be referred to as a "player".

16   *Patron deposit account.* An account maintained on behalf of a patron, for the purpose of

17   depositing and withdrawing cashable funds for the primary purpose of interacting with a gaming

18   activity.

19   *Player interface.* Any component or components of a Class II gaming system, including an

20   electronic or technologic aid (not limited to terminals, player stations, handhelds, fixed units, etc.),

21   that directly enables player interaction in a Class II game.

1   *Prize schedule.* The set of prizes available to players for achieving pre-designated patterns in the

2   Class II game.

3   *Program storage media.* An electronic data storage component, such as a CD-ROM, EPROM,

4   hard disk, or flash memory on which software is stored and from which software is read.

5   *Progressive prize.* A prize that increases by a selectable or predefined amount based on play of a

6   Class II game.

7   *Proprietary Class II System Component.* A system component that is only interoperable with a

8   single manufacturer's Class II system. Examples include vouchering systems, accounting systems,

9   and cashless systems.

10   *Random number generator (RNG).* A software module, hardware component or combination of

11   these designed to produce outputs that are effectively random.

12   *Reflexive software.* Any software that has the ability to manipulate and/or replace a randomly

13   generated outcome for the purpose of changing the results of a Class II game.

14   *Removable/rewritable storage media.* Program or data storage components that can be removed

15   from gaming equipment and be written to, or rewritten by, the gaming equipment or by other

16   equipment designed for that purpose.

17   *Server.* A computer that controls one or more applications or environments within a Class II

18   gaming system.

19   *Test/diagnostics mode.* A mode on a component that allows various tests to be performed on the

20   Class II gaming system hardware and software.

21   *Testing laboratory.* An organization recognized by a TGRA pursuant to § 547.5(f).

1   *TGRA*. Tribal gaming regulatory authority, which is the entity authorized by tribal law to regulate

2   gaming conducted pursuant to the Indian Gaming Regulatory Act.

3   *Voucher*. A financial instrument of fixed wagering value, usually paper, that can only be used to

4   acquire an equivalent value of cashable credits or cash through interaction with a voucher system.

5   *Voucher system*. A proprietary component of the Class II gaming system that securely maintains

6   records of vouchers and coupons; validates payment of vouchers; records successful or failed

7   payments of vouchers and coupons; and controls the purging of expired vouchers and coupons.

8   ~~these regulations affect state jurisdiction?~~

9

10   ~~Nothing in this part shall be construed to grant to a state jurisdiction over Class II gaming or to~~

11   ~~extend a state's jurisdiction over Class III gaming.~~

12   **§ 547.3   Who is responsible for implementing these standards?**

13   (a) *Minimum Standards*. These are minimum standards and, recognizing that TGRAs also

14   regulate Class II gaming, a TGRA may establish and implement additional technical standards that

15   do not conflict with the standards set out in this Part.

16   (b) *No Limitation of Technology*. This part should not be interpreted to limit the use of technology

17   or to preclude the use of technology not specifically referenced.

18   (c) *Only applicable standards apply*. Gaming equipment and software used with Class II gaming

19   systems must meet all applicable requirements of this part. For example, if a Class II gaming system

20   lacks the ability to print or accept vouchers, then any standards that govern vouchers do not apply.

1   (d) *State Jurisdiction.* Nothing in this part shall be construed to grant to a state jurisdiction over

2   Class II gaming or to extend a state's jurisdiction over Class III gaming.

3   **What are the definitions for this part?** For the purposes of this part, the following definitions

4   apply:*Account access component.* A component within a Class II gaming system that reads or

5   recognizes account access media and gives a patron the ability to interact with his or her

6   account.*Account access medium.* A magnetic stripe card or any other medium inserted into, or

7   otherwise made to interact with, an account access component in order to give a patron the ability to

8   interact with an account. *Audit mode.* The mode where it is possible to view Class II gaming system

9   accounting functions, statistics, etc. and perform non-player-related functions.

10   *Agent.* An employee or other person authorized by the gaming operation, as approved by the tribal

11   gaming regulatory authority, designated for certain decisions, tasks and actions in the gaming

12   operation.*Cancel credit.* An action initiated by the Class II gaming system where some or all of a

13   player's credits are removed by an attendant and paid to the player.*Cashless system.* A system that

14   performs cashless transactions and maintains records of those cashless transactions.*Cashless

15   transaction.* A movement of funds electronically from one component to another, often to or from a

16   patron deposit account.

17

18   CD-ROM. Compact Disc - Read Only Memory.

19

20   Chairman. The Chairman of the National Indian Gaming Commission.*Class II* game. The same as

21   "class II gaming" in 25 U.S.C. 2703(7)(A).

1   *Class II gaming system*. All components, whether or not technologic aids in electronic, computer,

2   mechanical, or other technologic form, that function together to aid the play of one or more Class II

3   games, including accounting functions mandated by these regulations.

4   *Commission*. The National Indian Gaming Commission established by the Indian Gaming

5   Regulatory Act, 25 U.S.C. 2701 *et seq.Coupon*. A financial instrument of fixed wagering value,

6   usually paper, that can only be used to acquire non-cashable credits through interaction with a

7   voucher system. This does not include instruments such as printed advertising material that cannot be

8   validated directly by a voucher system.

9   *Critical memory. Memory locations storing data essential to the functionality of the Class II*

10   *gaming system.*

11   *DLL*. A Dynamic-Link Library file.

12   *Download package*. Approved data sent to a component of a Class II gaming system for such

13   purposes as changing the component software.

14   *DVD*. Digital Video Disk or Digital Versatile Disk.

15   *Electromagnetic interference*The physical characteristic of an electronic component to emit

16   electronic noise either into free air, onto the power lines, or onto communication cables.

17

18   Electrostatic discharge. A single-event, rapid transfer of electrostatic charge between two objects,

19   usually resulting when two objects at different potentials come into direct contact with each other.

20

21   EPROM. Erasable Programmable Read Only Memory - a storage area that may be filled with data

22   and information, that once written is not modifiable, and that is retained even if there is no power

1 applied to the machine.

2

3 *Fault*. An event that when detected by a Class II gaming system causes a discontinuance of game

4 play or other component functions.

5 *Financial instrument*. Any tangible item of value tendered in Class II game play, including, but

6 not limited to, bills, coins, vouchers and coupons.

7 *Financial instrument acceptor*. Any component that accepts financial instruments, such as a bill

8 validator.   *Financial instrument dispenser*. Any component that dispenses financial instruments,

9 such as a ticket printer.

10 *Financial instrument storage component*. Any component that stores financial instruments, such

11 as a drop box.

12 *Flash memory*. Non-volatile memory that retains its data when the power is turned off and that

13 can be electronically erased and reprogrammed without being removed from the circuit board.

14 *Game software*. The operational program or programs that govern the play, display of results,

15 and/or awarding of prizes or credits for Class II games.

16 *Gaming equipment*. All electronic, electro-mechanical, mechanical, or other physical components

17 utilized in the play of Class II games.

18 *Hardware*. Gaming equipment.

19 *Interruption*. Any form of mis-operation, component failure, or interference to the Class II

20 gaming equipment.

1   *Modification.* A revision to any hardware or software used in a Class II gaming system.   *Non-*

2   *cashable credit.* Credits given by an operator to a patron; placed on an Class II gaming system

3   through a coupon, cashless transaction or other approved means; and capable of activating play but

4   not being converted to cash.

5   *Patron deposit account.* An account maintained on behalf of a patron, for the purpose of depositing

6   and withdrawing cashable funds for the primary purpose of interacting with a gaming activity.

7   *Player interface.* Any component or components of a Class II gaming system, including an

8   electronic or technologic aid (not limited to terminals, player stations, handhelds, fixed units, etc.),

9   that directly enables player interaction in a Class II game.

10   *Prize schedule.* The set of prizes available to players for achieving pre-designated patterns in the

11   Class II game.

12   *Program storage media.* An electronic data storage component, such as a CD-ROM, EPROM,

13   hard disk, or flash memory on which software is stored and from which software is read.

14   *Progressive prize.* A prize that increases by a selectable or predefined amount based on play of a

15   Class II game.

16   *Random number generator (RNG).* A software module, hardware component or combination of

17   these designed to produce outputs that are effectively random.

18   *Reflexive software.* Any software that has the ability to manipulate and/or replace a randomly

19   generated outcome for the purpose of changing the results of a Class II game.

1   *Removable/rewritable storage media.* Program or data storage components that can be removed

2   from gaming equipment and be written to, or rewritten by, the gaming equipment or by other

3   equipment designed for that purpose.

4   *Server.* A computer that controls one or more applications or environments within a Class II

5   gaming system.

6   *Test/diagnostics mode.* A mode on a component that allows various tests to be performed on the

7   Class II gaming system hardware and software.

8   *Testing laboratory.* An organization recognized by a tribal gaming regulatory authority pursuant

9   to § 547.4(f).Tribal gaming regulatory authority. The entity authorized by tribal law to regulate

10   gaming conducted pursuant to the Indian Gaming Regulatory Act.

11   *Voucher.* A financial instrument of fixed wagering value, usually paper, that can only be used to

12   acquire an equivalent value of cashable credits or cash through interaction with a voucher system.

13   *Voucher system.* A component of the Class II gaming system or an external system that securely

14   maintains records of vouchers and coupons; validates payment of vouchers; records successful or

15   failed payments of vouchers and coupons; and controls the purging of expired vouchers and coupons.

16   **§ 547.4 What are the rules of general application for this part?**

17   (a) *Fairness.* No Class II gaming system may cheat or mislead users. All prizes advertised must

18   be available to win during the game. Test laboratory must calculate and/or verify the mathematical

19   expectations of game play, where applicable, in accordance with the manufacturer stated submission.

20   The results must be included in the test laboratory's report to the TGRA. At the request of the TGRA,

21   the manufacturer must also submit the mathematical expectations of the game play to the TGRA.

(b) *Approved equipment and software only.* All gaming equipment and software used with Class II gaming systems must be identical in all respects to a prototype reviewed and tested by a testing laboratory and approved for use by the TGRA pursuant to § 547.5(a) through (c). Unapproved software must not be loaded onto or stored on any program storage medium used in a Class II gaming system, except as provided in § 547.5(e).

(c) *Proper functioning.* All gaming equipment and software used with Class II gaming systems must perform according to the manufacturer's design and operating specifications.

§ 547.5 **How does a tribal government, ~~tribal gaming regulatory authority~~TGRA, or tribal gaming operation comply with this part?**

~~(a) Limited immediate compliance. A tribal gaming regulatory authority shall:~~

~~(1) Require~~

(a) *Grandfathered Gaming systems*: For all Class II gaming systems available for use at any tribal gaming facility that were manufactured or placed in a tribal facility on or before November 10, 2008, the TGRA must:

(1) Have required that all Class II gaming system software that affects the play of the Class II game ~~be~~ and was in operation prior to November 10, 2008 was submitted, together with the signature verification required by § 547.8(f), to a testing laboratory recognized pursuant to paragraph (f) of this section within 120 days after November 10, 2008~~;~~

~~(2) Require~~.

(2) Have required that the testing laboratory ~~test~~ tested the submission to the standards established by § 547.~~4~~4(a), § 547.8(b), § 547.8(f), § 547.14, ~~the minimum probability standards of §~~

1 ~~547.5(c),~~ and to any additional technical standards adopted by the ~~tribal gaming regulatory authority;~~

2

3 ~~(3) Require~~ TGRA;

4   (3) Have required that the testing laboratory provide the ~~tribal gaming regulatory authority~~TGRA

5 with a formal written report setting forth and certifying to the findings and conclusions of the test;

6   (4) ~~Make~~ Have made a finding, in the form of a certificate provided to the supplier or

7 manufacturer of the Class II gaming system, that the Class II gaming system qualifies for grandfather

8 status under the provisions of this section, but only upon receipt of a testing ~~laboratory's~~laboratory's

9 report that the Class II gaming system is compliant with § 547.4(a), § 547.8(b), § 547.8(f), ~~the~~

10 ~~minimum probability standards of § 547.5(c),~~ § 547.14, and any other technical standards adopted by

11 the ~~tribal gaming regulatory authority~~TGRA. If the ~~tribal gaming regulatory authority does~~TGRA did

12 not issue the certificate, or if the testing laboratory ~~finds~~found that the Class II gaming system is not

13 compliant with § 547.4(a), § 547.8(b), § 547.8(f), ~~the minimum probability standards of § 547.5(c),~~

14 § 547.14, or any other technical standards adopted by the ~~tribal gaming regulatory authority~~TGRA,

15 then the gaming system ~~shall~~must immediately be removed from play and not be utilized;

16   (5) Retain a copy of any testing laboratory's report ~~so long as the Class II gaming system that is~~

17 ~~the subject of the report remains available to the public for play;~~

18

19 ~~(6) Retain a copy of any certificate of grandfather status~~ and any certificate of grandfather status so

20 long as the Class II gaming system that is the subject of the ~~certificate~~report remains available to the

21 public for play; and

1   ___(76) Require Have required the supplier of any player interface to designate with a permanently

2   affixed label each player interface with an identifying number and the date of manufacture or a

3   statement that the date of manufacture was on or before the effective date of this part. The tribal

4   gaming regulatory authority shall also require the supplier to provide a written declaration or

5   affidavit affirming that the date of manufacture was on or before November 10, 2008.

6   plate consistent with § 547.7(d) and any other information required by the TGRA.

7   ___(b) *Grandfather provisions.* All Class II gaming systems manufactured or placed in a tribal

8   facility on or before the effective date of this part and November 10, 2008 and that have been

9   certified pursuant to paragraph (a) of this section are grandfathered Class II gaming systems for

10   which the following provisions apply:

11   ___(1) Grandfathered Class II gaming systems may continue in operation for a period of five years

12   from November 10, 2008.

13   ___(2) Grandfathered Class II gaming systems shallmay only be be available for used at any tribal

14   gaming facility subject to approval approved by the tribal gaming regulatory authorityTGRA. The

15   TGRA, which shallmust transmit its notice of that approval, identifying the grandfathered Class II

16   gaming system and its components, to the Commission.

17   ___(3) Remote communications must only be allowed if authorized by the TGRA. Grandfathered

18   systems must have the ability to enable or disable remote access, and the default state must be set to

19   disabled.

20   3 (4) As permitted by the tribal gaming regulatory authorityTGRA, individual hardware or software

21   components of a grandfathered Class II gaming system may be repaired or replaced to ensure proper

22   functioning, security, or integrity of the grandfathered Class II gaming system.

1   (5) All modifications that affect the play of a grandfathered Class II gaming system ~~shall~~must be

2   approved pursuant to paragraph (c) of this section, except for the following:

3   (i) Any software modifications that the ~~tribal gaming regulatory authority~~TGRA finds will

4   maintain or advance the system's overall compliance with this part or any applicable provisions of

5   ~~parts 542 and~~ part 543 of this chapter, after receiving a new testing laboratory report that the

6   modifications are compliant with the standards established by § 547.4(a), § 547.8(b), ~~the minimum~~

7   ~~probability requirements of § 547.5(c),~~ § 547.14, and any other standards adopted by the TGRA;

8   (ii) Any hardware modifications that the ~~tribal gaming regulatory authority~~TGRA finds will

9   maintain or advance the ~~system's~~system's overall compliance with this part or any applicable

10   provisions of part~~s 542 and~~ 543 of this chapter; and

11   (iii) Any other modification to the software of a grandfathered Class II gaming system that the

12   ~~tribal gaming regulatory authority~~TGRA finds will not detract from, compromise or prejudice:

13   (A) The proper functioning, security, or integrity of the Class II gaming system, and

14   (B) The gaming system's overall compliance with the requirements of this part or any applicable

15   provisions of ~~parts 542 and~~ part 543 of this chapter.

16   (iv) No such modification may be implemented without the approval of the ~~tribal gaming~~

17   ~~regulatory authority~~TGRA. The ~~tribal gaming regulatory authority~~TGRA ~~shall~~must maintain a record

18   of the modification so long as the Class II gaming system that is the subject of the modification

19   remains available to the public for play and ~~shall~~must make the record available to the Commission

20   upon request. The Commission will only make available for public review records or portions of

21   records subject to release under the Freedom of Information Act, 5 U.S.C. 552; the Privacy Act of

22   1974, 5 U.S.C. 552a; or the Indian Gaming Regulatory Act, 25 U.S.C. 2716(a).

1   (c) *Submission, testing, and approval — – generally.* Except as provided in paragraphs (b) and (d)

2   of this section, ~~no tribal gaming regulatory authority~~a TGRA ~~shall~~must not permit ~~in a tribal gaming~~

3   ~~operation~~ the use of any Class II gaming system, or any associated cashless system or voucher

4   system or any modification thereto, in a tribal gaming operation unless:

5   (1) The Class II gaming system, cashless system, voucher payment system, or modification

6   thereto has been submitted to a testing laboratory;

7   ___(2) The testing laboratory ~~tests~~is required by the TGRA to test the submission to the standards

8   established by:

9   ___(i) This part;

10   ___(ii) Any applicable provisions of part~~s 542 and~~ 543 of this chapter that are testable by the testing

11   laboratory; and

12   ___(iii) The ~~tribal gaming regulatory authority;~~

13

14   TGRA;

15   ___(3) The testing laboratory provides a formal written report to the party making the submission,

16   setting forth and certifying to its findings and conclusions~~;~~ and noting compliance with any

17   applicable federal laws or regulations;

18   ___(4)~~(i)~~ The testing laboratory's written report certifies that the operation of each player interface

19   must not be compromised or affected by electrostatic discharge, liquid spills, electromagnetic

20   interference, radio frequency interference, or any other risk identified by the TGRA;

1   (5) Following receipt of the testing laboratory's report, the ~~tribal gaming regulatory~~

2   ~~authority~~TGRA makes a finding that the Class II gaming system, cashless system, or voucher system

3   conforms to the standards established by:

4   (A) This part;

5   (B) Any applicable provisions of part~~s 542 and~~ 543 of this chapter that are testable by the testing

6   laboratory; and

7   (C) The ~~tribal gaming regulatory authority.~~

8

9   ~~(ii) The tribal gaming regulatory authority~~TGRA.

10   (d) The TGRA ~~shall~~must retain a copy of the testing laboratory's report required by paragraph (c)

11   of this section so long as the Class II gaming system, cashless system, voucher system, or

12   modification thereto that is the subject of the report remains available to the public for play in its

13   gaming operation.

14

15   ~~(d~~

16   (e) *Emergency hardware and software modifications.*

17   (1) A ~~tribal gaming regulatory authority~~TGRA, in its discretion, may permit modified hardware

18   or software to be made available for play without prior laboratory testing or review if the modified

19   hardware or software is:

20   (i) Necessary to correct a problem affecting the fairness, security, or integrity of a game or

21   accounting system or any cashless system, or voucher system; or

1   ___(ii) Unrelated to game play, an accounting system, a cashless system, or a voucher system.

2   ___(2) If a ~~tribal gaming regulatory authority~~TGRA authorizes new or modified software or

3   hardware to be made available for play or use without prior testing laboratory review, the ~~tribal~~

4   ~~gaming regulatory authority~~TGRA ~~shall~~must thereafter require the hardware or software

5   manufacturer to:

6   ___(i) Immediately advise other users of the same hardware or software of the importance and

7   availability of the update;

8   ___(ii) Immediately submit the new or modified hardware or software to a testing laboratory for

9   testing and verification of compliance with this part and any applicable provisions of part~~s 542 and~~

10   543 of this chapter that are testable by the testing laboratory; and

11   ___(iii) Immediately provide the ~~tribal gaming regulatory authority~~TGRA with a software signature

12   verification tool meeting the requirements of § 547.8(f) for any new or modified software.

13   ___(3) If a ~~tribal gaming regulatory authority~~TGRA authorizes a software or hardware modification

14   under this paragraph, it ~~shall~~must maintain a record of the modification and a copy of the testing

15   laboratory report so long as the Class II gaming system that is the subject of the modification remains

16   available to the public for play and ~~shall~~must make the record available to the Commission upon

17   request. The Commission will only make available for public review records or portions of records

18   subject to release under the Freedom of Information Act, 5 U.S.C. 552; the Privacy Act of 1974, 5

19   U.S.C. 552a; or the Indian Gaming Regulatory Act, 25 U.S.C. 2716(a).

20   ___(e) *Compliance by charitable gaming operations.* This part ~~shall~~does not apply to charitable

21   gaming operations, provided that:

1   ___(1) The tribal government determines that the organization sponsoring the gaming operation is a

2   charitable organization;

3   ___(2) All proceeds of the charitable gaming operation are for the benefit of the charitable

4   organization;

5   ___(3) The ~~tribal gaming regulatory authority~~TGRA permits the charitable organization to be exempt

6   from this part;

7   ___(4) The charitable gaming operation is operated wholly by the charitable

8   ~~organization's~~organization's employees or volunteers; and

9   (5) The annual gross gaming revenue of the charitable gaming operation does not exceed

10    $1,000,000.

11   (f) *Testing laboratories.*

12   ___(1) A testing laboratory may provide the examination, testing, evaluating and reporting functions

13   required by this section provided that:

14   ___(i) It demonstrates its integrity, independence and financial stability to the ~~tribal gaming~~

15   ~~regulatory authority.~~

16   TGRA.

17   ___(ii) It demonstrates its technical skill and capability to the ~~tribal gaming regulatory authority.~~

18

19   TGRA.

20   ___(iii) ~~It~~If the testing laboratory is ~~not~~owned or operated by, or affiliated with, the ~~same~~tribe ~~or~~

21   ~~tribal gaming regulatory authority~~, it must be independent from the manufacturer and gaming

1 operator for whom it is providing the testing, evaluating, and reporting functions required by this

2 section.

3 ____(iv) The tribal gaming regulatory authority:

4 TGRA:

5 (A) Makes a suitability determination of the testing laboratory based upon standards no less

6 stringent than those set out in §§ 533.6(b)(1)(ii) through (v) of this chapter and based upon no less

7 information than that required by § 537.1 of this chapter, or

8 (B) Accepts, in its discretion, a determination of suitability for the testing laboratory made by any

9 other gaming regulatory authority in the United States.

10 ____(v) After reviewing the suitability determination and the information provided by the testing

11 laboratory, the tribal gaming regulatory authorityTGRA determines that the testing laboratory is

12 qualified to test and evaluate Class II gaming systems.

13 ____(2) The tribal gaming regulatory authorityTGRA shallmust:

14 ____(i) Maintain a record of all determinations made pursuant to paragraphs (f)(1)(iviii) and (f)(1)(iv)

15 of this section for a minimum of three years and shallmust make the records available to the

16 Commission upon request. The Commission will only make available for public review records or

17 portions of records subject to release under the Freedom of Information Act, 5 U.S.C. 5525 U.S.C.

18 552; the Privacy Act of 1974, 5 U.S.C. 552a5 U.S.C. 552a; or the Indian Gaming Regulatory Act, 25

19 U.S.C. 2716(a).

20

21 25 U.S.C. 2716(a).

1   ___(ii) Place the testing laboratory under a continuing obligation to notify it of any adverse

2   regulatory action in any jurisdiction where the testing laboratory conducts business.

3   ___(iii) Require the testing laboratory to provide notice of any material changes to the information

4   provided to the ~~tribal gaming regulatory authority.~~TGRA.

5

6   **§ 547.5 What are the rules of interpretation and of general application for this part?** (a)

7   Minimum standards. A tribal gaming regulatory authority may establish and implement additional

8   technical standards that are as stringent as, or more stringent than, those set out in this part.

9

10   (b) *Only applicable standards apply.* Gaming equipment and software used with Class II gaming

11   systems shall meet all applicable requirements of this part. For example, if a Class II gaming system

12   lacks the ability to print or accept vouchers, then any standards that govern vouchers do not apply.

13

14   (c) *Fairness.* No Class II gaming system shall cheat or mislead users. All prizes advertised shall be

15   available to win. No progressive prize shall have a probability of winning less than 1 in 100,000,000.

16   No other prize shall have a probability of winning less than 1 in 50,000,000.

17

18   (d) *Approved equipment and software only.* All gaming equipment and software used with Class II

19   gaming systems shall be identical in all respects to a prototype reviewed and tested by a testing

20   laboratory and approved for use by the tribal gaming regulatory authority pursuant to § 547.4(a)

21   through (c). Unapproved software shall not be loaded onto or stored on any program storage medium

22   used in a Class II gaming system, except as provided in § 547.4(d).

23

1 (e) *Proper functioning.* All gaming equipment and software used with Class II gaming systems shall

2 perform according to the manufacturer's design and operating specifications.

3

4 (f) No Limitation of Technology. This part should not be interpreted to limit the use of technology or

5 to preclude the use of technology not specifically referenced.

6

7 (g) *Severability.* If any provision of this part is declared invalid by a court of competent jurisdiction,

8 such decision shall not affect the remainder of this part.

9

10 **§ 547.6 What are the minimum technical standards for enrolling and enabling Class II**

11 **gaming system components?**

12 (a) *General requirements.* Class II gaming systems shallmust provide a method to:

13 (1) Enroll and unenroll system components;

14 (2) Enable and disable specific system components.

15 (b) *Specific requirements.* Class II gaming systems shallmust:

16 (1) Ensure that only enrolled and enabled system components participate in gaming; and

17 (2) Ensure that the default condition for components shallmust be unenrolled and disabled.

18

19 **§ 547.7 What are the minimum technical hardware standards applicable to Class II gaming**

20 **systems?**

1   ___(a) General requirements. (1) The Class II gaming system shall operate in compliance with

2   applicable regulations of the Federal Communications Commission.

3

4   (2) Prior to approval by the tribal gaming regulatory authority pursuant to § 547.4(c), the Class II

5   gaming system shall have obtained from Underwriters' Laboratories, or its equivalent, relevant

6   certification(s) required for equipment of its type, including but not limited to certifications for liquid

7   spills, electromagnetic interference, etc.

8

9   (b) *Printed circuit boards.*

10   ___(1) Printed circuit boards that have the potential to affect the outcome or integrity of the game,

11   and are specially manufactured or proprietary and not off-the-shelf, shallmust display a unique

12   identifier such as a part number and/or revision number, which shallmust be updated to reflect new

13   revisions or modifications of the board.

14   ___(2) Switches or jumpers on all circuit boards that have the potential to affect the outcome or

15   integrity of any game, progressive award, financial instrument, cashless transaction, voucher

16   transaction, or accounting records shallmust be capable of being sealed.

17

18   (c

19   ___(b) *Electrostatic discharge.* Class II gaming system components accessible to the public

20   shallmust be constructed so that they exhibit immunity to human body electrostatic discharges on

21   areas exposed to contact. Static discharges of +/-±15 kV for air discharges and +/-±7.5 kV for contact

22   discharges may must not cause damage, or inhibit operation or integrity of the Class II gaming

23   system.

(d

(c) *Physical enclosures.* Physical enclosures ~~shall~~must be of a robust construction designed to resist determined illegal entry. All protuberances and attachments such as buttons, identification plates, and labels ~~shall~~must be sufficiently robust to avoid unauthorized removal.

(e

(d) *Player interface.* The player interface ~~shall~~must display the serial number and date of manufacture and include a method or means to:

(1) Display information to a player; and

(2) Allow the player to interact with the Class II gaming system.

(e) *Account access components.* A Class II gaming system component that reads account access media ~~shall~~must be located within a secure, locked or tamper-evident area or in a cabinet or housing that is of a robust construction designed to resist determined illegal entry and to protect internal components. In addition, the account access component:

(1) ~~Shall~~Must be constructed so that physical tampering leaves evidence of such tampering; and

(2) ~~Shall~~Must provide a method to enable the Class II gaming system to interpret and act upon valid or invalid input or error condition.

(g

1   (f) *Financial instrument storage components.* Any Class II gaming system components that store

2   financial instruments and that are not operated under the direct control of a gaming operation

3   employee or agent shallmust be located within a secure and locked area or in a locked cabinet or

4   housing that is of a robust construction designed to resist determined illegal entry and to protect

5   internal components.

6   (h

7   (g) *Financial instrument acceptors.*

8   (1) Any Class II gaming system components that handle financial instruments and that are not

9   operated under the direct control of an agent shallmust:

10   (i) Be located within a secure, locked and tamper-evident area or in a locked cabinet or housing

11   that is of a robust construction designed to resist determined illegal entry and to protect internal

12   components;

13   (ii) Be able to detect the entry of valid or invalid financial instruments and to provide a method to

14   enable the Class II gaming system to interpret and act upon valid or invalid input or error condition;

15   and

16   (iii) Be constructed to permit communication with the Class II gaming system of the accounting

17   information required by § 547.9(a) and by applicable provisions of any Commission and tribal

18   gaming regulatory regulations governing minimum internal control standards.

19   (2) Prior to completion of a valid financial instrument transaction by the Class II gaming system,

20   no monetary amount related to that instrument shallmust be available for play. For example, credits

21   shallmust not be available for play until currency or coupon inserted into an acceptor is secured in the

22   storage component.

1   ___(3) The monetary amount related to all valid financial instrument transactions by the Class II

2   gaming system shallmust be recorded as required by § 547.9(a) and the applicable provisions of any

3   Commission and tribal gaming regulatory authorityTGRA regulations governing minimum internal

4   control standards.

5

6   (i

7   ___(h) *Financial instrument dispensers.*

8   ___(1) Any Class II gaming system components that dispense financial instruments and that are not

9   operated under the direct control of a gaming operation employee or agent shallmust:

10   ___(i) Be located within a secure, locked and tamper-evident area or in a locked cabinet or housing

11   that is of a robust construction designed to resist determined illegal entry and to protect internal

12   components;

13   ___(ii) Provide a method to enable the Class II gaming system to interpret and act upon valid or

14   invalid input or error condition; and

15   ___(iii) Be constructed to permit communication with the Class II gaming system of the accounting

16   information required by § 547.9(a) and by applicable provisions of any Commission and tribal

17   gaming regulatory regulations governing minimum internal control standards.

18   ___(2) The monetary amount related to all valid financial instrument transactions by the Class II

19   gaming system shallmust be recorded as required by § 547.9(a), the applicable provisions of parts

20   542 and 543 of this chapter, and any tribal gaming regulatory authorityTGRA regulations governing

21   minimum internal control standards.

1

2   (i

3   (i) *Game Outcome Determination Components.* Any Class II gaming system logic components

4   that affect the game outcome and that are not operated under the direct control of a gaming operation

5   employee or agent ~~shall~~must be located within a secure, locked and tamper-evident area or in a

6   locked cabinet or housing that is of a robust construction designed to resist determined illegal entry

7   and to protect internal components. DIP switches or jumpers that can affect the integrity of the Class

8   II gaming system ~~must~~must be capable of being sealed by the ~~tribal gaming regulatory authority.~~

9

10   ~~(k)~~TGRA.

11   (j) *Door access detection.* All components of the Class II gaming system that are locked in order

12   to meet the requirements of this part ~~shall~~must include a sensor or other methods to monitor an open

13   door. A door open sensor, and its components or cables, ~~shall~~must be secure against attempts to

14   disable them or interfere with their normal mode of operation~~;~~

15

16   (l.

17   (k) *Separation of functions/no limitations on technology.* Nothing herein ~~shall~~must prohibit the

18   account access component, financial instrument storage component, financial instrument acceptor,

19   and financial instrument dispenser from being included within the same component~~,~~ or being

20   separated into individual components.

21   **§ 547.8   What are the minimum technical software standards applicable to Class II gaming**

22   **systems?**

1   This section provides general software standards for Class II gaming systems for the play of

2   Class II games

3   (a) *Player interface displays.*

4   ___(1) If not otherwise provided to the player, the player interface ~~shall~~must display the following:

5   (i) The purchase or wager amount;

6   (ii) Game results; and

7   (iii) Any player credit balance.

8   (2) Between plays of any game and until the start of the next play, or until the player selects a

9   new game option such as purchase or wager amount or card selection, whichever is earlier, if not

10   otherwise provided to the player, the player interface ~~shall~~must display:

11   (i) The total purchase or wager amount and all prizes and total credits won for the last game

12   played;

13   ___(ii) The final results for the last game played~~, including entertaining displays of results, if any~~;

14   and_

15   ___(iii) Any default purchase or wager amount for the next play._

16   ___(b) *Game initiation and play.*

17   ___(1) Each game played on the Class II gaming system ~~shall~~must follow and not deviate from a

18   constant set of rules for each game provided to players pursuant to § 547.16. ~~Any change in rules~~

19   ~~constitutes a different game.~~ There ~~shall~~must be no automatic or undisclosed changes of rules.

1   ___(2) For bingo games and games similar to bingo, theThe Class II gaming system shallmust not

2   alter or allow to be altered the card permutations or game rules used for play of a Class II game

3   unless specifically chosen by the player prior to commitment to participate in the game. No duplicate

4   cards shallmust be sold for any common draw.

5   (3) No game play shallmay commence and, no financial instrument or credit shallmay be

6   accepted on the affected player interface, in the presence of any fault condition that affects the

7   outcome of the game, open door, or while in test, audit, or lock-up mode.

8   (4) The player shallmust choose to participate in the play of a game.

9   (c) *Audit Mode.*

10 ___(1) If an audit mode is provided, the Class II gaming system shallmust provide, for those

11 components actively involved in the audit:

12 ___(i) All accounting functions required by § 547.9, by applicable provisions of any Commission

13 regulations governing minimum internal control standards, and by any internal controls adopted by

14 the tribe or tribal gaming regulatory authority;

15

16 TGRA;

17 ___(ii) Display player interface identification; and

18 ___(iii) Display software version or game identification;

19 ___(2) Audit mode shallmust be accessible by a secure method such as an employeeagent PIN and,

20 key, or other auditable access control.

1   (3) Accounting function data ~~shall~~must be accessible by an ~~authorized person~~ agent at any time,

2   except during a payout, during a handpay, or during play.

3   (4) The Class II gaming system ~~shall~~must disable financial instrument acceptance on the affected

4   player interface while in audit mode, except during financial instrument acceptance testing.

5   (d) *Last game recall.* The last game recall function ~~shall~~must:

6   (1) Be retrievable at all times, other than when the recall component is involved in the play of a

7   game, upon the operation of an external key-switch, entry of an audit card, or a similar method;

8   (2) Display the results of recalled games as originally displayed or in text representation~~,~~

9   ~~including entertaining display results implemented in video, rather than electro-mechanical, form, if~~

10   ~~any,~~ so as to enable the ~~tribal gaming regulatory authority~~TGRA or operator to clearly identify the

11   ~~game~~ sequences and results that occurred;

12   (3) Allow the Class II gaming system component providing game recall, upon return to normal

13   game play mode, to restore any affected display to the positions, forms and values displayed before

14   access to the game recall information; and

15   (4) Provide the following information for the current and previous four games played and

16   ~~shall~~must display:

17   (i) ~~Game~~ Play start time, end time, and date;

18   (ii) The total number of credits at the start of play~~, less the purchase or wager amount;~~

19

20   ;

21   (iii) The purchase or wager amount;

1   (iv) The total number of credits at the end of play; and

2   (v) The total number of credits won as a result of the game recalled, and the value in dollars and

3 cents for progressive prizes, if different;.

4   (vi) For bingo games and games similar to bingo only, also display:

5   (A) The card(s) used by the player;

6   (B) The identifier of the bingo game played;

7   (C) The numbers or other designations drawn, in the order that they were drawn;

8   (D) The numbers or other designations and prize patterns covered on each card;

9   (E) All prizes won by the player, including winning patterns, if any; and entertaining displays

10 implemented in video, rather than electro-mechanical form, if any; and

11

12

13   (F) The unique identifier of the card on which prizes were won;

14   (vii) For pull-tab games only, also display:

15   (A)   The result(s) of each pull-tab, displayed in the same pattern as on the tangible pull-tab;

16   (B)   All prizes won by the player;

17   (C)   The unique identifier of each pull tab; and

18   (D)   Any other information necessary to fully reconstruct the current and four previous plays.

1   (e) *Voucher and credit transfer recall.* Notwithstanding the requirements of any other section in

2   this part, a Class II gaming system shallmust have the capacity to:

3   (1) Display the information specified in § 547.11(b)(5)(ii) through (vi) for the last five vouchers

4   or coupons printed and the last five vouchers or coupons accepted; and

5   (2) Display a complete transaction history for the last five cashless transactions made and the last

6   five cashless transactions accepted.

7   ___(f) *Software signature verification.* The manufacturer or developer of the Class II gaming system

8   shallmust provide to the testing laboratory and to the tribal gaming regulatory authorityTGRA an

9   industry-standard methodology, acceptable to the tribal gaming regulatory authorityTGRA, for

10   verifying the Class II gaming system game software. By way of illustration, for game software stored

11   on rewritable media, such methodologies include signature algorithms and hashing formulas such as

12   SHA-1.

13   (g) *Test, diagnostic, and demonstration modes.* If test, diagnostic, and/or demonstration modes

14   are provided, the Class II gaming system shallmust, for those components actively involved in the

15   test, diagnostic, or demonstration mode:

16   (1) Clearly indicate when that component is in the test, diagnostic, or demonstration mode;

17   (2) Not alter financial data on that component other than temporary data;

18   (3) Only be available after entering a specific mode;

19   (4) Disable credit acceptance and payment unless credit acceptance or payment is being tested;

20   and

21   (5) Terminate all mode-specific functions upon exiting a mode.

1   (h) *Multigame.* If multiple games are offered for player selection at the player interface, the

2   player interface ~~shall~~must:

3   (1) Provide a display of available games;

4   (2) Provide the means of selecting among them;

5   ___(3) Display the full amount of the player's credit balance;

6   (4) Identify the game selected or being played; and

7   (5) Not force the play of a game after its selection.

8   (i) *Program interruption and resumption.* The Class II gaming system software ~~shall~~must be

9   designed so that upon resumption following any interruption, the system:

10   (1) Is able to return to a known state;

11   (2) ~~Shall~~Must check for any fault condition upon resumption;

12   (3) ~~Shall~~Must verify the integrity of data stored in critical memory;

13   (4) ~~Shall~~Must return the purchase or wager amount to the player in accordance with the rules of

14   the game; and

15   (5) ~~Shall~~Must detect any change or corruption in the Class II gaming system software.

16   (j) *Class II gaming system components acting as progressive controllers.* This paragraph applies

17   to progressive controllers and components acting as progressive controllers in Class II gaming

18   systems.

1 ___(1) Modification of progressive parameters ~~shall~~must be conducted in a secure manner approved

2 by the ~~tribal gaming regulatory authority~~TGRA. Such parameters may include:

3 (i) Increment value;

4 (ii) Secondary pool increment(s);

5 (iii) Reset amount(s);

6 (iv) Maximum value(s); and

7 (v) Identity of participating player interfaces.

8 (2) The Class II gaming system component or other progressive controller ~~shall~~must provide a

9 means of creating a progressive balancing report for each progressive link it controls. At a minimum,

10 that report ~~shall~~must provide balancing of the changes of the progressive amount, including

11 progressive prizes won, for all participating player interfaces versus current progressive amount(s),

12 plus progressive prizes. In addition, the report ~~shall~~must account for, and not be made inaccurate by,

13 unusual events such as:

14 (i) Class II gaming system critical memory clears;

15 (ii) Modification, alteration, or deletion of progressive prizes;

16 (iii) Offline equipment; or

17 (iv) Multiple site progressive prizes.

18 (k) *Critical memory.*

1   ___-(1) Critical memory may be located anywhere within the Class II gaming system. Critical

2   memory is any memory that maintains any of the following data:

3   (i) Accounting data;

4   (ii) Current credits;

5   (iii) Configuration data;

6   (iv) Last game play recall information required by § 547.8(d);

7   ___(v) GameGame play recall information for the current game play, if incomplete;

8   (vi) Software state (the last normal state software was in before interruption);

9   (vii) RNG seed(s), if necessary for maintaining integrity;

10   (viii) Encryption keys, if necessary for maintaining integrity;

11   (ix) Progressive prize parameters and current values;

12   (x) The five most recent financial instruments accepted by type, excluding coins and tokens;

13   (xi) The five most recent financial instruments dispensed by type, excluding coins and tokens;

14   and

15   (xii) The five most recent cashless transactions paid and the five most recent cashless

16   transactions accepted.

17   (2) Critical memory shallmust be maintained using a methodology that enables errors to be

18   identified and acted upon. All accounting and recall functions shallmust be verified as necessary to

19   ensure their ongoing integrity.

1   (3) The validity of affected data stored in critical memory ~~shall~~must be checked after each of the

2 following events:

3   (i) Every restart;

4   (ii) Each attendant paid win;

5   (iii) Each attendant paid progressive win;

6   (iv) Each sensored door closure; and

7   (v) Every reconfiguration, download, or change of prize schedule or denomination requiring

8 operator intervention or action.

9   (l) Secured access. Class II gaming systems that use a logon or other means of secured access

10 ~~shall~~must include a user account lockout after a predetermined number of consecutive failed attempts

11 to access system.

12 **§ 547.9   What are the minimum technical standards for Class II gaming system accounting**

13 **functions?**

14   This section provides standards for accounting functions used in Class II gaming systems.

15   (a) *Required accounting data.* The following minimum accounting data, however named,

16 ~~shall~~must be maintained by the Class II gaming system.

17   (1) Amount In: The total value of all financial instruments and cashless transactions accepted

18 by the Class II gaming system. Each type of financial instrument accepted by the Class II gaming

19 system ~~shall~~must be tracked independently per financial instrument acceptor, and as required by

1   applicable requirements of Commission and TGRA regulations governing minimum internal control

2   standards.

3   (2) Amount Out: The total value of all financial instruments and cashless transactions paid by

4   the Class II gaming system, plus the total value of attendant pay. Each type of financial instrument

5   paid by the Class II Gaming System ~~shall~~must be tracked independently per financial instrument

6   dispenser, and as required by applicable requirements of Commission and TGRA regulations

7   governing minimum internal control standards.

8   (b) *Accounting data storage.* If the Class II gaming system electronically maintains accounting

9   data:

10   (1) Accounting data ~~shall~~must be stored with at least eight decimal digits.

11   (2) Credit balances ~~shall~~must have sufficient digits to accommodate the design of the game.

12   (3) Accounting data displayed to the player may be incremented or decremented using visual

13   effects, but the internal storage of this data ~~shall~~must be immediately updated in full.

14   (4) Accounting data ~~shall~~must be updated upon the occurrence of the relevant accounting event.

15   (5) Modifications to accounting data ~~shall~~must be recorded, including the identity of the

16   person(s) making the modifications, and be reportable by the Class II gaming system.

17   (c) *Rollover.* Accounting data that rolls over to zero ~~shall~~must not corrupt data.

18   (d) *Credit balance display and function.*

19   ___(1) Any credit balance maintained at the player interface ~~shall~~must be prominently displayed at

20   all times except:

1   (i) In audit, configuration, recall and test modes; or

2   (ii) Temporarily, during entertaining displays of game results.

3   (2) Progressive prizes may be added to the player's credit balance provided:

4   (i) The player credit balance is maintained in dollars and cents;

5   (ii) The progressive accounting data is incremented in number of credits; or

6   (iii) The prize in dollars and cents is converted to player credits or transferred to the player's

7   credit balance in a manner that does not mislead the player or cause accounting imbalances.

8   (3) If the player credit balance displays in credits, but the actual balance includes fractional

9   credits, the Class II gaming system ~~shall~~must display the fractional credit when the player credit

10   balance drops below one credit.

11   **§ 547.10 What are the minimum standards for Class II gaming system critical events?**

12   This section provides standards for events such as system critical faults, deactivation, door open

13   or other changes of states, and lockup within the Class II gaming system.

14   (a) *Fault events.*

15   (1) The following events are to be treated as described below:

16

17

(i) Component fault	Reported when a fault on a component is detected. When possible, this event message

	should indicate what the nature of the fault is.
(ii) Financial storage component full	Reported when a financial instrument acceptor or dispenser includes storage, and it becomes full. This event message should indicate what financial storage component is full.
(iii) Financial output component empty	Reported when a financial instrument dispenser is empty. The event message should indicate which financial output component is affected, and whether it is empty.
(iv) Financial component fault	Reported when an occurrence on a financial component results in a known fault state.
(v) Critical memory error	Some critical memory error has occurred. When a non-correctable critical memory error has occurred, the data on the Class II gaming system component can no longer be considered reliable. Accordingly, any game play on the affected component ~~shall~~must cease immediately, and an appropriate message ~~shall~~must be displayed, if possible.
(vi) Progressive communication fault	If applicable; when communications with a progressive controller component is in a known fault state.
(vii) Program storage medium fault	Any game play on the affected component ~~shall~~must cease immediately, and an appropriate message ~~shall~~must be displayed, if possible.

1

2   (2) The occurrence of any event identified in paragraph (a)(1) of this section ~~shall~~must be

3   recorded.

4   (3) Upon clearing any event identified in paragraph (a)(1) of this section, the Class II gaming

5   system ~~shall~~must:

6   (i) Record that the fault condition has been cleared;

7   (ii) Ensure the integrity of all related accounting data; and

1   (iii) In the case of a malfunction, return a player's purchase or wager according to the rules of the

2   game.

3   (b) *Door open/close events.*

4   ___(1) In addition to the requirements of paragraph (a)(1) of this section, the Class II gaming system

5   ~~shall~~must perform the following for any component affected by any sensored door open event:

6   (i) Indicate that the state of a sensored door changes from closed to open or opened to closed;

7   (ii) Disable all financial instrument acceptance, unless a test mode is entered;

8   (iii) Disable game play on the affected player interface;

9   (iv) Disable player inputs on the affected player interface, unless test mode is entered; and

10   (v) Disable all financial instrument disbursement, unless a test mode is entered.

11   (2) The Class II gaming system may return the component to a ready to play state when all

12   sensored doors are closed.

13   (c) *Non-fault events.* (1) The following non-fault events are to be treated as described below, if

14   applicable:

Event	Definition and Action to be Taken
(i) Player interface off during play	This condition is reported by the affected component(s) to indicate it has been turned on.
(ii) Player interface power on	This condition is reported by the affected component(s) to indicate it has been turned on
(iii) Financial instrument storage component container/stacker removed	This condition is reported when a financial instrument storage container has been ~~removied~~removed. The event message should indicated which storage container was removed

1

2   **§ 547.11 What are the minimum technical standards for money and credit handling?**

3   This section provides standards for money and credit handling by a Class II gaming system.

4   (a) *Credit acceptance, generally.*

5   ___(1) Upon any credit acceptance, the Class II gaming system ~~shall~~must register the correct number

6   of credits on the player's credit balance.

7   (2) The Class II gaming system ~~shall~~must reject financial instruments deemed invalid.

8   (b) *Credit redemption, generally.*

9   ___(1) For cashable credits on a player interface, players ~~shall~~must be allowed to cash out and/or

10   redeem those credits at the player interface except when that player interface is:

11   (i) Involved in the play of a game;

12   (ii) In audit mode, recall mode or any test mode;

13   (iii) Detecting any sensored door open condition;

14   (iv) Updating the player credit balance or total win accounting data; or

15   (v) Displaying a fault condition that would prevent cash-out or credit redemption. In this case a

16   fault indication ~~shall~~must be displayed.

17   (2) For cashable credits not on a player interface, the player ~~shall~~must be allowed to cash out

18   and/or redeem those credits at any time.

1   (3) A Class II gaming system ~~shall~~must not automatically pay an award subject to mandatory tax

2   reporting or withholding.

3   (4) Credit redemption by voucher or coupon ~~shall~~must conform to the following:

4   (i) A Class II gaming system may redeem credits by issuing a voucher or coupon when it

5   communicates with a voucher system that validates the voucher or coupon.

6   (ii) A Class II gaming system that redeems credits by issuing vouchers and coupons ~~shall~~must

7   either:

8   (A) Maintain an electronic record of all information required by paragraphs (b)(5)(ii) through (vi)

9   of this section; or

10   (B) Generate two identical copies of each voucher or coupon issued, one to be provided to the

11   player and the other to be retained within the machine for audit purposes.

12   (5) Valid vouchers and coupons from a voucher system ~~shall~~must contain the following:

13   (i) Gaming operation name and location;

14   (ii) The identification number of the Class II gaming system component or the player interface

15   number, as applicable;

16   (iii) Date and time of issuance;

17   (iv) Alpha and numeric dollar amount;

18   (v) A sequence number;

19   (vi) A validation number that:

1   (A) Is produced by a means specifically designed to prevent repetition of validation numbers; and

2   (B) Has some form of checkcode or other form of information redundancy to prevent prediction

3   of subsequent validation numbers without knowledge of the checkcode algorithm and parameters;

4   (vii) For machine-readable vouchers and coupons, a bar code or other form of machine readable

5   representation of the validation number, which shallmust have enough redundancy and error

6   checking to ensure that 99.9% of all misreads are flagged as errors;

7   (viii) Transaction type or other method of differentiating voucher and coupon types; and

8   (ix) Expiration period or date.

9   (6) Transfers from an account may not exceed the balance of that account.

10   (7) For Class II gaming systems not using dollars and cents accounting and not having odd cents

11   accounting, the Class II gaming system shallmust reject any transfers from voucher payment systems

12   or cashless systems that are not even multiples of the Class II gaming system denomination.

13   (8) Voucher redemption systems shallmust include the ability to report redemptions per

14   redemption location or user.

15   **§ 547.12 What are the minimum technical standards for downloading on a Class II gaming**

16   **system?**

17   This section provides standards for downloading on a Class II gaming system.

18   (a) *Downloads.*

19   ___(1) Downloads are an acceptable means of transporting approved content, including but not

20   limited to software, files, data, and prize schedules.

1   ___(2) Downloads ~~of software, games, prize schedules, or other download packages shall be~~

2   ~~conducted only as authorized by the tribal gaming regulatory authority.~~

3

4   ~~(3) Downloads shall~~must use secure methodologies that will deliver the download data without

5   alteration or modification, in accordance with § 547.15(a).

6

7   ~~(4~~

8   ___(3) Downloads conducted during operational periods ~~shall~~must be performed in a manner that

9   will not affect game play.

10

11   ~~(5~~

12   ___(4) Downloads ~~shall~~must not affect the integrity of accounting data.

13   ___(5) The Class II gaming system ~~or the tribal gaming regulatory authority shall~~must ~~log each~~

14   ~~download~~be capable of ~~any download package. Each log record shall contain as a minimum:~~

15

16   providing:

17   ___(i) The time and date of the initiation of the download;

18   (ii) The time and date of the completion of the download;

19   (iii) The Class II gaming system components to which software was downloaded;

20   (iv) The version(s) of download package and any software downloaded. Logging of the unique

21   software signature will satisfy this requirement;

22   (v) The outcome of any software verification following the download (success or failure); and

23   (vi) The name and identification number, or other unique identifier, of any individual(s)

24   conducting or scheduling a download.

25   _____(b) *Verifying downloads.* ~~Following download of any game~~Downloaded software~~, the Class II~~

26   ~~gaming system shall verify the downloaded software~~ on a Class II gaming system must be capable of

27   being verified by the Class II gaming system using a software signature verification method that

1 meets the requirements of § 547.8(f). ~~Using any method it deems appropriate, the tribal gaming~~
2 ~~regulatory authority shall confirm the verification.~~

3

4

5 ~~§ 547.12 What are the minimum technical standards for downloading on a Class II gaming~~

6 ~~system?~~

7 ~~This section provides standards for downloading on a Class II gaming system.~~

8 ~~(a) *Downloads*. (1) Downloads are an acceptable means of transporting approved content,~~

9 ~~including but not limited to software, files, data, and prize schedules.~~

10
11 **§ 547.13 What are the minimum technical standards for program storage media?**

12   This section provides minimum standards for removable, (re-)writable, and non-<u>re</u>writable

13 storage media in Class II gaming systems.

14   (a) *Removable program storage media.* All removable program storage media ~~shall~~<u>must</u> maintain

15 an internal checksum or signature of its contents. Verification of this checksum or signature is to be

16 performed after every restart. If the verification fails, the affected Class II gaming system

17 component(s) ~~shall~~<u>must</u> lock up and enter a fault state.

18   (b) *Nonrewritable program storage media.*

19 ___(1) All EPROMs and Programmable Logic Devices ~~(PLDs)~~ that have erasure windows ~~shall~~<u>must</u>

20 be fitted with covers over their erasure windows.

1   (2) All unused areas of EPROMs ~~shall~~must be written with the inverse of the erased state (~~e.g.,~~

2   zero bits (00 hex) for most EPROMs), random data, or repeats of the program data.

3   (3) Flash memory storage components intended to have the same logical function as ROM, ~~i.e.~~

4   ~~not to be dynamically written, shall~~must be write-protected or otherwise protected from unauthorized

5   modification.

6   (4) The write cycle ~~shall~~must be closed or finished for all CD-ROMs such that it is not possible

7   to write any further data to the CD.

8   (5) Write protected hard disks are permitted if the hardware means of enabling the write protect is

9   easily viewable and can be sealed in place Write protected hard disks are permitted using software

10   write protection verifiable by a testing laboratory.

11   (c) *Writable and rewritable program storage media.*

12   ___(1) Writable and rewritable program storage, such as hard disk drives, Flash memory, writable

13   CD-ROMs, and writable DVDs, may be used provided that the software stored thereon may be

14   verified using the mechanism provided pursuant to § 547.8(f).

15   (2) Program storage ~~shall~~must be structured so there is a verifiable separation of fixed data

16   (~~e.g~~such as~~.~~ program, fixed parameters, DLLs) and variable data.

17   (d) *Identification of program storage media.* All program storage media that is not rewritable in

18   circuit, (~~e.g.~~EPROM, CD-ROM) ~~shall~~must be uniquely identified, displaying:

19   (1) Manufacturer;

20   (2) Program identifier;

1   (3) Program version number(s); and

2   (4) Location information, if critical (~~e.g.~~ socket position 3 on the printed circuit board).

3   **§ 547.14 What are the minimum technical standards for electronic random number**

4   **generation?**

5   This section provides minimum standards for electronic RNGs in Class II gaming systems.

6   (a) *Properties*. All RNGs ~~shall~~must produce output having the following properties:

7   ___(1) Statistical randomness; ____

8   ___ ——(2) Unpredictability; and

9   ___(3) Non-repeatability.

10   (b) *Statistical Randomness*.

11   ___(1) Numbers or other designations produced by an RNG ~~shall~~must be statistically random

12   individually and in the permutations and combinations used in the application under the rules of the

13   game. For example, if a bingo game with 75 objects with numbers or other designations has a

14   progressive winning pattern of the five numbers or other designations on the bottom of the card, and

15   the winning of this prize is defined to be the five numbers or other designations that are matched in

16   the first five objects drawn, the likelihood of each of the 75C5 combinations are to be verified to be

17   statistically equal.

18   (2) Numbers or other designations produced by an RNG ~~shall~~must pass the statistical tests for

19   randomness to a 99% confidence level~~, which may include~~.

20   __(i) Mandatory statistical tests for randomness include:

1   (A) Chi-square test;

2   (B) Runs test (patterns of occurrences must not be recurrent); and

3   (C) Serial correlation test potency and degree of serial correlation (outcomes must be

4   independent from the previous game).

5   (ii) Where applicable statistical tests for randomness may include:

6   (A)   Equi-distribution (frequency) test;

7   (B)   Gap test;

8   (C)   Poker test;

9   (D) Coupon collector's test;

10   (E) Permutation test;

11   (F) Spectral test; or

12   (G) Test on subsequences.

13   (c) *Unpredictability.*

14   (1) It ~~shall~~must not be possible to predict future outputs of an RNG, even if the algorithm and the

15   past sequence of outputs are known.

16   (2) Unpredictability ~~shall~~must be ensured by reseeding or by continuously cycling the RNG, and

17   by providing a sufficient number of RNG states for the applications supported.

18   (3) Re-seeding may be used where the re-seeding input is at least as statistically random as, and

19   independent of, the output of the RNG being re-seeded.

1 (d) *Non-repeatability.* The RNG ~~shall~~must not be initialized to reproduce the same output stream

2 that it has produced before, nor ~~shall~~must any two instances of an RNG produce the same stream as

3 each other. This property ~~shall~~must be ensured by initial seeding that comes from:

4 (1) A source of "true" randomness, such as a hardware random noise generator; or

5 (2) A combination of timestamps, parameters unique to a Class II gaming system, previous RNG

6 outputs, or other, similar method.

7 (e) *General requirements.*

8 ____(1) Software that calls an RNG to derive game outcome events ~~shall~~must immediately use the

9 output returned in accordance with the game rules.

10 (2) The use of multiple RNGs is permitted as long as they operate in accordance with this

11 section.

12 (3) RNG outputs ~~shall~~must not be arbitrarily discarded or selected.

13 (4) Where a sequence of outputs is required, the whole of the sequence in the order generated

14 ~~shall~~must be used in accordance with the game rules.

15 (5) The Class II gaming system ~~shall~~must neither adjust the RNG process or game outcomes

16 based on the history of prizes obtained in previous games nor ~~make~~use any reflexive software or

17 secondary decision that affects the results shown to the player or game outcome. ~~Nothing in this~~

18 ~~paragraph shall prohibit the use of entertaining displays.~~

19

20

1   ___(f) *Scaling algorithms and scaled numbers.* An RNG that provides output scaled to given ranges

2   ~~shall~~must:

3   ___(1) Be independent and uniform over the range;

4   ___(2) Provide numbers scaled to the ranges required by game rules, and notwithstanding the

5   requirements of paragraph (e)(3) of this section, may discard numbers that do not map uniformly

6   onto the required range but ~~shall~~must use the first number in sequence that does map correctly to the

7   range;

8   ___(3) Be capable of producing every possible outcome of a game according to its rules; and~~; and~~

9

10

11   ___(4) Use an unbiased algorithm. ~~A scaling algorithm is considered to be unbiased if the measured~~

12   and any bias ~~is no greater than 1 in 100 million.~~must be reported to the TGRA.

13   **§ 547.15 What are the minimum technical standards for electronic data communications**

14   **between system components?**

15   This section provides minimum standards for electronic data communications with gaming

16   equipment or components used with Class II gaming systems.

17   ___(a) *Sensitive data.* Communication of sensitive data ~~shall~~must be secure from eavesdropping,

18   access, tampering, intrusion or alteration unauthorized by the ~~tribal gaming regulatory~~

19   ~~authority.~~TGRA. Sensitive data ~~shall~~ include~~s~~, but is not ~~be~~ limited to:

20   (1) RNG seeds and outcomes;

21   (2) Encryption keys, where the implementation chosen requires transmission of keys;

1   (3) PINs;

2   (4) Passwords;

3   (5) Financial instrument transactions;

4   (6) Transfers of funds;

5   (7) Player tracking information;

6   (8) Download Packages; and

7   (9) Any information that affects game outcome.

8   (b) *Wireless communications.*

9   (1) Wireless access points ~~shall~~must not be accessible to the general public.

10   (2) Open or unsecured wireless communications are prohibited.

11   (3) Wireless communications ~~shall~~must be secured using a methodology that makes

12 eavesdropping, access, tampering, intrusion or alteration impractical. By way of illustration, such

13 methodologies include encryption, frequency hopping, and code division multiplex access (as in cell

14 phone technology).

15   (c) Methodologies ~~shall~~must be used that will ensure the reliable transfer of data and provide a

16 reasonable ability to detect and act upon any corruption of the data.

17   (d) Class II gaming systems ~~shall~~must record detectable, unauthorized access or intrusion

18 attempts.

1 ___(e) Remote communications ~~shall~~must only be allowed if authorized by the ~~tribal gaming~~

2 ~~regulatory authority.~~TGRA. Class II gaming systems ~~shall~~must have the ability to enable or disable

3 remote access, and the default state ~~shall~~must be set to disabled.

4 (f) Failure of data communications ~~shall~~must not affect the integrity of critical memory.

5 (g) The Class II gaming system ~~shall~~must log the establishment, loss, and re-establishment of

6 data communications between sensitive Class II gaming system components.

7 **§ 547.16 What are the minimum standards for game artwork, glass, and rules?**

8 This section provides standards for the display of game artwork, the displays on belly or top

9 glass, and the display and disclosure of game rules, whether in physical or electronic form.

10 (a) *Rules, instructions, and prize schedules, generally.* The following ~~shall~~must at all times be

11 displayed or made readily available to the player upon request:

12 (1) Game name, rules, and options such as the purchase or wager amount stated clearly and

13 unambiguously;

14 (2) Denomination;

15 (3) Instructions for play on, and use of, the player interface, including the functions of all buttons;

16 and

17 (4) A prize schedule or other explanation, sufficient to allow a player to determine the correctness

18 of all prizes awarded, including;

19 (i) The range and values obtainable for any variable prize;

20 (ii) Whether the value of a prize depends on the purchase or wager amount; and

1 (iii) The means of division of any pari-mutuel prizes; but

2 ___(iv) For ~~bingo and games similar to bingo~~Class II Gaming Systems, the prize schedule or other

3 explanation need not state that subsets of winning patterns are not awarded as additional prizes

4 (~~e.g~~for example,~~.~~ five in a row does not also pay three in a row or four in a row), unless there are

5 exceptions, which ~~shall~~must be clearly stated.

6 ___(b) *Disclaimers.* ~~The Class II gaming system~~ The Player Interface ~~shall~~must continually display:_

7 ___(1) "Malfunctions void all prizes and plays" or equivalent; and

8 ___(2) "Actual Prizes Determined by Bingo [or other applicable Class II game] Play. Other Displays

9 for Entertainment Only" or equivalent.___

10 (c) *Odds notification.* If the odds of hitting any advertised top prize exceeds 100 million to one,

11 the Player Interface must continually display "Odds of winning the advertised top prize exceeds 100

12 million to one" or equivalent.

13 **§ 547.17___How does a tribal gaming regulatory authority apply ~~for~~ to implement an alternate**

14 **standard to those required by this part?**

15 (a ~~variance from these standards?~~

16

17 ~~(a)~~) *~~Tribal Gaming Regulatory Authority~~TGRA approval.*

18 (1) A ~~tribal gaming regulatory authority~~TGRA may approve ~~a variance from the requirements of~~

19 an alternate standard from those required by this part if it has determined that the ~~variance~~ alternate

20 standard will achieve a level of security and integrity sufficient to accomplish the purpose of the

21 standard it is to replace._

1   ___(2)___For each enumerated standard for which the tribal gaming regulatory authority approves a

2   variancean alternate standard, it shallmust submit to the Chairman within 30 days, a detailed report,

3   which shallmust include the following:

4   (i)_An explanation of how the variancealternate standard achieves a level of security and

5   integrity sufficient to accomplish the purpose of the standard it is to replace; and

6   (ii)_The variancealternate standard as granted and the record on which it is based.

7   (3)_In the event that the tribal gaming regulatory authorityTGRA or the tribe'stribe's government

8   chooses to submit a variancean alternate standard request directly to the Chairman for joint

9   government to government review, the tribal gaming regulatory authorityTGRA or tribal government

10   may do so without the approval requirement set forth in paragraph (a) (1) of this section.

11

12   (b) Chairman

13   (b) *Chair* Review.

14   ___(1) The Chairman may approve or object to a variancean alternate standard granted by a tribal

15   gaming regulatory authority.

16   (2)_Any objection by the Chairman shallmust be in written form with an explanation why the

17   variancealternate standard as approved by the tribal gaming regulatory authority TGRA does not

18   provide a level of security or integrity sufficient to accomplish the purpose of the standard it is to

19   replace.

20   (3)_If the Chairman fails to approve or object in writing within 60 days after the date of receipt of

21   a complete submission, the variancealternate standard shallis be considered approved by the

1 | Chair~~man~~. The Chair~~man and the tribal gaming regulatory authority~~ may, upon notification to the

2 | TGRA, ~~by agreement,~~ extend this deadline an additional 60 days.

3 | (4) No ~~variance~~alternate standard may be implemented until it has been approved by the ~~tribal~~

4 | ~~gaming regulatory authority~~TGRA pursuant to paragraph (a)(1) of this section or the Chair~~man~~ has

5 | approved pursuant to paragraph (b)(1) of this section.

6 | (c) *~~Commission Review.~~ Appeal of Chair decision.* A Chair's decision may be appealed

7 | pursuant to 25 CFR subchapter H.~~Should the tribal gaming regulatory authority elect to maintain its~~

8 | ~~approval after written objection by the Chairman, the tribal gaming regulatory authority shall be~~

9 | ~~entitled to an appeal to the full Commission in accordance with the following process:(1)   Within~~

10 | ~~60 days of receiving an objection, the tribal gaming regulatory authority shall file a written notice of~~

11 | ~~appeal with the Commission that may include a request for an oral hearing or it may request that the~~

12 | ~~matter be decided upon written submissions.~~

13 | ~~(2) Within 10 days after filing a notice of appeal the tribal gaming regulatory authority shall file~~

14 | ~~a supplemental statement specifying the reasons why the tribal gaming regulatory authority believes~~

15 | ~~the Chairman's objection should be reviewed, and shall include supporting documentation, if any.~~

16 | ~~(3) Failure to file an appeal or submit the supplemental statement within the time provided by~~

17 | ~~this section shall result in a waiver of the opportunity for an appeal.~~

18 | ~~(4) If an oral hearing is requested it shall take place within 30 days of the notice of appeal and a~~

19 | ~~record shall be made.~~

20 | ~~(5) If the tribal gaming regulatory authority requests that the appeal be decided on the basis of~~

21 | ~~written submission, the Commission shall issue a written decision within 30 days of receiving the~~

22 | ~~supplemental statement.~~

1   (6) The Commission shall uphold the objection of the Chairman, only if, upon de novo review of

2   the record upon which the Chairman's decision is based, the Commission determines that the

3   varianceapproved by the tribal gaming regulatory authority does not achieve a level of security and

4   integrity sufficient to accomplish the purpose of the standard it is to replace.

5   (7) The Commission shall issue a decision within 30 days of the oral hearing unless the tribal

6   gaming regulatory authority elects to provide the Commission additional time, not to exceed an

7   additional 30 days, to issue a decision. In the absence of a decision by the Commission within the

8   time provided, the decision of the tribal gaming regulatory authority shall be deemed affirmed.

9   (8) The Commission's decision shall constitute final agency action.

10   -

11